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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,781	08/17/2001	Sang-Ho Park	678-721 (P9889)	3651

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EXAMINER

GIBSON, ERIC M

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/931,781

Applicant(s)

PARK ET AL.

Examin r

Eric M Gibson

Art Unit

3661

-- The MAILING DATE of this c mmunicati n appears n the cover sheet with the correspondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 31 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

The missing documents from the IDS filed 2/5/2002 have been received and considered. See attached revised copy of Paper No. 4.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-8, 10-18, 20-25, and 27-52 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sulich et al. (US005875412A).

a. As per claim 1, Sulich teaches a vehicle navigation system that includes an information center (14, figure 5) having a map database (79, figure 6), for receiving information about a present vehicle position and a destination from a navigation terminal (column 7, lines 35-41), searching out an optimal route referring to the map database (80, figure 6), and generating route guidance data to the vehicle (column 7, line 65 - column 8, line 1). Sulich further teaches the navigation terminal inside the vehicle (18, figure 5), including calculating and transmitting the present position of the vehicle (column 7, lines 38-41), receiving the route guidance data (column 8, lines 1-3), and announcing a notification message about the node point (column 8, lines 4-7), and a wireless communication network for connecting the terminal to the information center

(74, figure 5). It is well-known in the art that cellular, or mobile telephones, are used as mobile terminals, see for example applicant's prior art, figure 2.

- b. As per claim 2, Sulich teaches displaying image data (column 8, lines 4-6).
- c. As per claim 3, Sulich teaches a mobile terminal for connecting to the wireless communication network (74, figure 5) and an ITS terminal (18, figure 5) having a GPS device (72, figure 5).
- d. As per claims 4-7, Sulich teaches using either the mobile terminal (figure 3, see also 74, figure 5) or the ITS terminal (figure 4, see also 18, figure 5) to announce route information and input information.
- e. As per claim 8, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).
- f. As per claim 10, Sulich teaches including road attributes (column 7, line 30-31).
- g. As per claim 11, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).
- h. As per claim 12, Sulich teaches a method of guiding a vehicle, including transmitting information about the present vehicle position and a destination from the navigation terminal to the information center wirelessly (column 7, lines 35-41), searching out an optimum route at the information center (80, figure 6), generating and transmitting route guidance data to the navigation terminal (column 7, line 65 - column 8, line 1), and announcing a notification message about the point by voice (column 8,

lines 4-7). It is well-known in the art that cellular, or mobile telephones, are used as mobile terminals, see for example applicant's prior art, figure 2.

- i. As per claim 13, Sulich teaches displaying image data (column 8, lines 4-6).
- j. As per claim 14, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).
- k. As per claim 15, Sulich teaches including road attributes (column 7, line 30-31).
- l. As per claim 16, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).
- m. As per claim 17, Sulich teaches requesting new route data when the vehicle strays from the optimum route (column 8, lines 11-29).
- n. As per claim 18, Sulich teaches a method of guiding a vehicle, including transmitting information about the present vehicle position and a destination from the navigation terminal to the information center wirelessly (column 7, lines 35-41), searching out an optimum route at the information center (80, figure 6), generating and transmitting route guidance data to the mobile terminal (74, figure 5) and from the mobile terminal to the ITS terminal (column 7, line 65 - column 8, line 1), and announcing a notification message about the point by voice (column 8, lines 4-7). It is well-known in the art that cellular, or mobile telephones, are used as mobile terminals, see for example applicant's prior art, figure 2.

- o. As per claim 20, Sulich teaches displaying image data at the ITS terminal (column 8, lines 4-6).
- p. As per claim 21, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).
- q. As per claim 22, Sulich teaches including road attributes (column 7, line 30-31).
- r. As per claim 23, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).
- s. As per claim 24, Sulich teaches requesting new route data when the vehicle strays from the optimum route (column 8, lines 11-29).
- t. As per claim 25, Sulich teaches a method of guiding a vehicle, including transmitting information about the present vehicle position and a destination from the navigation terminal to the information center wirelessly (column 7, lines 35-41), searching out an optimum route at the information center (80, figure 6), generating and transmitting route guidance data to the mobile terminal (74, figure 5) and from the mobile terminal to the ITS terminal (column 7, line 65 - column 8, line 1), and announcing a notification message about the point by voice (column 8, lines 4-7). It is well-known in the art that cellular, or mobile telephones, are used as mobile terminals, see for example applicant's prior art, figure 2.
- u. As per claim 27, Sulich teaches displaying image data at the ITS terminal (column 8, lines 4-6).

v. As per claim 28, Sulich teaches that the information center takes into account traffic data in the calculation of the route (column 7, lines 28-30).

w. As per claim 29, Sulich teaches including road attributes (column 7, line 30-31).

x. As per claim 30, Sulich teaches the node points are intersections (i.e. "turn by turn", column 7, lines 59-62).

y. As per claim 31, Sulich teaches requesting new route data when the vehicle strays from the optimum route (column 8, lines 11-29).

z. As per claim 32, Sulich teaches a mobile terminal comprising a navigation system that processes a call by bi-directional communication with a base station (column 8, lines 32-39), requests navigation information that satisfies a predetermined condition from an information center (column 4, lines 30-34), and downloads the information from the information center (column 7, line 65 - column 8, line 1). It is well-known in the art that cellular, or mobile telephones, are used as mobile terminals, see for example applicant's prior art, figure 2.

aa. As per claim 33, in Sulich the information is transmitted to the ITS mounted in a moving object (vehicle).

bb. As per claim 34, Sulich teaches the predetermined condition includes a destination position for the vehicle to be guided (column 7, lines 35-38).

cc. As per claim 35, Sulich teaches that the information center includes a map database that provides navigation information by generating route guidance data according to the current position and destination of the moving object (see figure 6).

dd. As per claim 36, Sulich teaches a display for displaying the state of call processing (54, figure 3) and displaying route guidance information (30, figure 5).

ee. As per claim 37, Sulich teaches an input portion for acting as a user interface (48, figure 3 and 28, figure 5).

ff. As per claim 38, Sulich teaches a microprocessor (24, figure 5).

gg. As per claim 39, in Sulich the input portion is a "touch pad" or the equivalent in the art (keypad 48, figure 3; keyboard 28, figure 5).

hh. As per claim 40, Sulich teaches a keypad that includes key assignment memory areas (50 and 52, figure 3) for assigning keys to the first mode (call processing) and the second mode (navigation).

ii. As per claim 41, Sulich teaches an input portion for acting as a user interface (28, figure 5) and a display for displaying route guidance information (30, figure 5).

jj. As per claim 42, Sulich teaches transitioning between a navigation mode and a voice call mode (50 and 52, figure 3).

kk. As per claim 43, Sulich teaches a user selection of vehicle position and destination in a navigation mode (column 7, lines 35-38).

ll. As per claims 44 and 46, menu keys are well known in the art of input devices.

mm. As per claims 45, 47 and 48, Sulich teaches a key dedicated to transitioning to the navigation mode (52, figure 3) to provide route guidance.

nn. As per claims 49 and 51, it is well-known in the art that cellular, or mobile telephones, are used as mobile terminals, which are removable, see for example applicant's prior art, figure 2.

oo. As per claims 50 and 52, it would be obvious to one of ordinary skill in the art at the time of the invention that a telephone can be used for voice calls.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sulich in view of Fastenrath (US005889477A).

a. As per claim 9, Sulich teaches the invention as explained in the rejection of claim 1. Sulich further teaches a first server for generating traffic information (36, figure 5), a second server for searching out the optimum route (80, figure 6), and a third server for connecting to the wireless communication network (78, figure 5). While Sulich does provide for a traffic information database, there is no explicit teaching of the plurality of sensors installed on roads for collecting traffic information. There exist multiple methods of collecting traffic data in the prior art. These methods can range from stationary sensors installed in roads to mobile units installed in vehicles. One exemplary reference is Fastenrath '477, which teaches a plurality of sensors installed on roads (8, figure 1) that collect traffic information. It would have been obvious to one of ordinary skill in the art, at the time of invention, to collect traffic information for a traffic

database, as taught in Sulich, by using sensors installed on the roads, as is a known method in the art, exemplified by the example of Fastenrath '477, in order to provide the actual data that makes up the database.

3. Claims 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sulich in view of Ohmura et al. (US006125326A).

a. As per claims 19 and 26, Sulich teaches the invention as explained in the rejection of claims 18 and 25. Furthermore, Sulich teaches that the mobile terminal is equipped with a number display (see figure 3). However, there is no teaching in Sulich to provide for the mobile terminal to display image data. Ohmura teaches a mobile terminal similar to that contemplated by Sulich, wherein the mobile device also contains a display capable of displaying image data (see figure 5). This allows for greater portability of the received routing instructions in the navigation system. It would have been obvious to one of ordinary skill in the art, at the time of invention, to equip the mobile terminal of Sulich with the capability to display image data, in order to increase the portability of the received routing instructions, as taught in Ohmura. See also applicant's prior art, figure 2.

Response to Arguments

Applicant's arguments filed 12/31/2002 have been fully considered but they are not persuasive. The applicant contends on pages 4-6 that the prior art fails to teach a "mobile terminal" and a "wireless communication network." However, the prior art in the above rejections has established that a cellular or mobile phone is a both "mobile" and a

“terminal” in the most basic sense of the word. Furthermore, advances in technology that would have been obvious to one of ordinary skill in the art at the time of the invention, would suggest that phones are capable of more functions and greater portability, see for example the applicant's prior art in figure 2.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

EMG
March 18, 2003



MICHAEL J. ZANELLI
PRIMARY EXAMINER